**ARTIFICIAL INTELLIGENCE BEHAVIOUR EVALUATION**

**Challenges involved:**

The biggest challenge I encountered during this project was the implementation of Dijkstra’s Path, which took me far too long to do and far too many tutorials read through. One of the other notable challenges I faced was the implementation of my Finite State Machine. Not the actual creation of the State Machine, but the mere implementation. I had spent 3 hours playing around wondering why it wasn’t working, and then had Richard point out that it was all due to not making 3 functions virtual. That’s it.

**How well was the plan met?**

To say I was overly optimistic is one way to put it, imaginative is another. I had planned to make a proper mini-game based off the old arcade game missile defence, however I spent much longer than anticipated trying to get the basic concepts to work within my “test” project. In the end, the test project was completed the day of the due date, with the Finite State Machine being completed last. I had also planned to implement A\*, which would have been a simple addition once Dijkstra’s was set up, however I prioritised the rest of the necessary features to this product, and so ran out of time before I was able to upgrade it. As the game is now, I have the basic framework to make the game I had imagined at the start of this topic.

**Improvements for future projects?**

I’ve found that I find a lot of online resources to be quite difficult to understand, and so become a bit more reliant on the AIE tutorials and slide shows, as well as Richard. I’ve now bought the book “Programming Game AI by Example” which has helped be tremendously in the past and hope for this resource to be all that I need to teach myself core concepts.

I can also improve with better time management and more motivation when at home. During the 2 weeks break that we had from school, not a lot of work went into this project, and so, my laziness during that period is one of the main contributing factors of me not having accomplished all I had planned to.

**What different techniques would have been better at implementing the behaviour plan?**

Honestly, there’s not a lot I can say on this topic. My project was simple enough that it didn’t warrant the extra effort in implementing some of the more complicated pathfinding and decision-making techniques. Being such a small inexpensive project, using the simplest techniques available to me was the best way to go. I do not believe there would have been a better alternative given the time constraint to both learn and implement these new concepts.